

## **REMARKS**

Reconsideration and allowance of the claims are requested in view of the above amendments and the following remarks. Claims 1-9 have been amended. Support for the claim amendments may be found in the specification and claims as originally filed. For example, support for the claim amendments may be found in the present specification at least at page 3, lines 20-23; page 5, lines 12-34; page 7, lines 4-8; and Figures 2-4. New claims 10-17 have been added. No new matter has been added.

Upon entry of this amendment, claims 1-17 are pending with claims 1 and 12 being independent.

Applicants thank Examiners Carter and Lefkowitz for the courtesies extended to applicants' representative, Mr. Sung Kim, during a personal interview conducted on June 11, 2008. The substance of the interview is incorporated in the following remarks.

### **1. Change of Power of Attorney**

The present Office Action was erroneously mailed to Dykema Gossett PLLC in Bloomfield Hills, MI. Additionally, as of the current date Public PAIR erroneously indicates that the Attorney/Agent for the present application is Dykema Gossett PLLC.

A change of power of attorney was filed in the present application on March 27, 2008, revoking all previous powers of attorney given for the present application to Dykema Gossett PLLC and appointing practitioners associated with customer number 22971 (i.e., practitioners at Microsoft Corporation). A statement under 37 CFR 3.73(b) was submitted with the change of power of attorney. Therefore, applicants respectfully request that all future correspondence from the Office regarding the present application be sent to the correspondence address associated with customer number 22971:

Microsoft Corporation  
One Microsoft Way  
Redmond, WA 98052-6399

Type of Response: Amendment  
Application Number: 10/559,891  
Attorney Docket Number: 324003.07  
Filing Date: December 6, 2005

Applicants also request that any official records relating to the present application be updated to reflect the changes invoked by the change of power of attorney filed on March 27, 2008.

## **2. Claim Objections**

The Office Action objects to claim 8 because of informalities. Claim 8 has been amended to overcome the objection.

For at least the above reason, reconsideration and withdrawal of the objection to claim 8 is respectfully requested.

## **3. Rejections Under 35 U.S.C. §102**

The Office Action rejects claims 1-2, 5 and 7-9 under 35 U.S.C. §102(e) as being anticipated by Sakaguchi et al. (6,448,951). Applicants respectfully traverse this rejection for at least the following reasons.

Sakaguchi et al. discloses a LCD device employing a high speed field sequential drive scheme to display a color image on a LCD device without using a color filter (see abstract, col. 1, lines 5-14). Sakaguchi et al. discloses that a backlight 4 is vertically divided into a plurality of backlight sections #0, #1, #2, . . . corresponding to the areas of the TFT LCD array 3. The ON/OFF states of the individual backlight sections are independently controlled by the backlight driver 8 so that the backlight sections are sequentially turned on or off from the top to the bottom of the TFT LCD array 8 (see col. 5, lines 49-53). Sakaguchi also discloses that light emitted from one of the R, G and B LEDs enters an optical guide 18, and the light reflected therefrom is forwarded to the TFT LCD array 3 through a light scattering sheet 19 (see col. 6, line 66 – col. 7, line 2; Figure 4).

However, as discussed during the interview, Sakaguchi et al. fails to disclose or suggest at least the elements of a plurality of light sources each arranged to inject light at a different angle into an edge of the waveguide, wherein light injected from each of the light sources emerges at different positions on a face of the waveguide based on the injection angle corresponding to each light source, and means for scanning the emerging light associated with a

Type of Response: Amendment  
Application Number: 10/559,891  
Attorney Docket Number: 324003.07  
Filing Date: December 6, 2005

light source onto a portion of the display, wherein a position of the portion of the display corresponds to the position on the face of the waveguide at which the light emerges, as included in independent claim 1 as amended.

Therefore, since Sakaguchi et al. fails to disclose, or even suggest, all of the elements of independent claim 1, this claim is not anticipated by Sakaguchi et al. and is allowable.

Claims 2, 5 and 7-9 depend from claim 1. As discussed above, claim 1 is allowable. For at least this reason, and the features recited therein, claims 2, 5 and 7-9 are also allowable.

For at least the above reasons, reconsideration and withdrawal of the rejection of claims 1-2, 5 and 7-9 under 35 U.S.C. §102(e) are respectfully requested.

**4. Rejections Under 35 U.S.C. §103**

**A. Rejection Based on Sakaguchi et al. and Wang**

The Office Action rejects claim 3 under 35 U.S.C. §103(a) as being unpatentable over Sakaguchi et al. in view of Wang (6,704,071). Applicants respectfully traverse this rejection for at least the following reasons.

As discussed above, Sakaguchi et al. fails to disclose or suggest all of the elements of independent claim 1. Wang fails to cure this defect.

Wang discloses a light source 23 that emits a light that may be reflected by a reflecting mirror 24 (see col. 3, lines 8-15; Figure 2). However, Wang fails to disclose or suggest at least the elements of a plurality of light sources each arranged to inject light at a different angle into an edge of the waveguide, wherein light injected from each of the light sources emerges at different positions on a face of the waveguide based on the injection angle corresponding to each light source, and means for scanning the emerging light associated with a light source onto a portion of the display, wherein a position of the portion of the display corresponds to the position on the face of the waveguide at which the light emerges, as included in independent claim 1 as amended.

Therefore, since Sakaguchi et al. and Wang, alone or in combination, fail to disclose or suggest all of the elements of independent claim 1, this claim is allowable.

Type of Response: Amendment  
Application Number: 10/559,891  
Attorney Docket Number: 324003.07  
Filing Date: December 6, 2005

Claim 3 depends from claim 1. As discussed above, claim 1 is allowable. For at least this reason, and the additional features recited therein, claim 3 is also allowable.

For at least the reasons above, reconsideration and withdrawal of the rejection of claim 3 under 35 U.S.C. §103(a) are respectfully requested.

**B. Rejection Based on Sakaguchi et al. and Nauta et al.**

The Office Action rejects claim 4 under 35 U.S.C. §103(a) as being unpatentable over Sakaguchi et al. in view of Nauta et al. (2002/0030772). Applicants respectfully traverse this rejection for at least the following reasons.

As discussed above, Sakaguchi et al. fails to disclose or suggest all of the elements of independent claim 1. Nauta et al. fails to cure this defect.

Nauta et al. discloses that light from a lamp 12 may be coupled into a waveguide 15 via a coupling-in means 13 that may be a wedge-shaped optical waveguide that limits the angle of the entering beam to 15 degrees with respect to faces 18, 19 of the waveguide 15 (see paragraph 30; Figure 1). However, Nauta et al. fails to disclose or suggest at least the elements of a plurality of light sources each arranged to inject light at a different angle into an edge of the waveguide, wherein light injected from each of the light sources emerges at different positions on a face of the waveguide based on the injection angle corresponding to each light source, and means for scanning the emerging light associated with a light source onto a portion of the display, wherein a position of the portion of the display corresponds to the position on the face of the waveguide at which the light emerges, as included in independent claim 1 as amended.

Therefore, since Sakaguchi et al. and Nauta et al., alone or in combination, fail to disclose or suggest all of the elements of independent claim 1, this claim is allowable.

Claim 4 depends from claim 1. As discussed above, claim 1 is allowable. For at least this reason, and the additional features recited therein, claim 4 is also allowable.

For at least the reasons above, reconsideration and withdrawal of the rejection of claim 4 under 35 U.S.C. §103(a) are respectfully requested.

**C. Rejection Based on Sakaguchi et al. and Higuchi et al.**

The Office Action rejects claim 6 under 35 U.S.C. §103(a) as being unpatentable over Sakaguchi et al. in view of Higuchi et al. (5,887,964). Applicants respectfully traverse this rejection for at least the following reasons.

As discussed above, Sakaguchi et al. fails to disclose or suggest all of the elements of independent claim 1. Higuchi et al. fails to cure this defect.

Higuchi et al. discloses that a typical beam representing directional light emitted from the exiting surface of the light guide plate may be led to the frontal direction inside the prism sheet by properly designing a prism vertical angle on the prism surfaces formed on the inside surface (see col. 8, lines 31-36). However, Higuchi et al. fails to disclose or suggest at least the elements of a plurality of light sources each arranged to inject light at a different angle into an edge of the waveguide, wherein light injected from each of the light sources emerges at different positions on a face of the waveguide based on the injection angle corresponding to each light source, and means for scanning the emerging light associated with a light source onto a portion of the display, wherein a position of the portion of the display corresponds to the position on the face of the waveguide at which the light emerges, as included in independent claim 1 as amended.

Therefore, since Sakaguchi et al. and Higuchi et al., alone or in combination, fail to disclose or suggest all of the elements of independent claim 1, this claim is allowable.

Claim 6 depends from claim 1. As discussed above, claim 1 is allowable. For at least this reason, and the additional features recited therein, claim 6 is also allowable.

For at least the reasons above, reconsideration and withdrawal of the rejection of claim 6 under 35 U.S.C. §103(a) are respectfully requested.

**5. New Claims**

New claims 10-17 have been added. Claims 10-11 depend from independent claim 1. As discussed above, claim 1 is allowable. For at least this reason, and the additional features recited therein, claims 10-11 are also allowable.

New independent claim 12 recites:

Type of Response: Amendment  
Application Number: 10/559,891  
Attorney Docket Number: 324003.07  
Filing Date: December 6, 2005

A method for illuminating a flat-panel display, comprising:

a) injecting light from a light source of a plurality of light sources at an injection angle into an edge of a tapered waveguide that is co-extensive with the display, wherein the injected light emerges from a position on a face of the waveguide based on the injection angle of the light source;

b) scanning light emerging from the position on the face of the waveguide onto a portion of the display, wherein a position of the portion of the display corresponds to the position on the face of the waveguide;

c) switching off the light source; and

d) sequentially repeating steps a) - c) for one or more other light sources of the plurality of light sources, wherein each of the plurality of light sources corresponds to a different injection angle, so that different portions of the display are illuminated in turn as each light source injects light into the edge of the waveguide.

As discussed above, Sakaguchi discloses that a backlight 4 is vertically divided into a plurality of backlight sections #0, #1, #2, . . . corresponding to the areas of the TFT LCD array 3. The ON/OFF states of the individual backlight sections are independently controlled by the backlight driver 8 so that the backlight sections are sequentially turned on or off from the top to the bottom of the TFT LCD array 8 (see col. 5, lines 49-53). Sakaguchi also discloses that light emitted from one of the R, G and B LEDs enters an optical guide 18, and the light reflected therefrom is forwarded to the TFT LCD array 3 through a light scattering sheet 19 (see col. 6, line 66 – col. 7, line 2; Figure 4).

However, for reasons similar to those discussed above with respect to independent claim 1, Sakaguchi et al. fails to disclose or suggest at least the elements of: a) injecting light from a light source of a plurality of light sources at an injection angle into an edge of a tapered waveguide that is co-extensive with the display, wherein the injected light emerges from a position on a face of the waveguide based on the injection angle of the light source; b) scanning light emerging from the position on the face of the waveguide onto a portion of the display, wherein a position of the portion of the display corresponds to the position on the face of the waveguide; c) switching off the light source; and d) sequentially repeating steps a) - c) for one or

more other light sources of the plurality of light sources, wherein each of the plurality of light sources corresponds to a different injection angle, so that different portions of the display are illuminated in turn as each light source injects light into the edge of the waveguide, as included in new claim 12. The other cited references fail to cure this defect.

Therefore, since none of the cited references, alone or in combination, disclose or suggest all of the elements of independent claim 12, this claim is allowable. Claims 13-17 depend from claim 12. For at least this reason, and the additional features recited therein, claims 13-17 are also allowable.

#### **6. Conclusion**

Accordingly, in view of the above amendment and remarks it is submitted that the claims are patentably distinct over the prior art and that all the rejections to the claims have been overcome. Reconsideration and reexamination of the present application is requested. Based on the foregoing, applicants respectfully request that the pending claims be allowed, and that a timely Notice of Allowance be issued in this case. If the Examiner believes, after this amendment, that the application is not in condition for allowance, the Examiner is requested to call the applicants' attorney at the telephone number listed below.

Type of Response: Amendment  
Application Number: 10/559,891  
Attorney Docket Number: 324003.07  
Filing Date: December 6, 2005

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, applicants hereby request any necessary extension of time. If there is a fee occasioned by this response, including an extension fee that is not covered by an enclosed check please charge any deficiency to Deposit Account No. 50-0463.

Respectfully submitted,  
Microsoft Corporation

Date: June 27, 2008

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**CERTIFICATE OF MAILING OR TRANSMISSION [37 CFR 1.8(a)]**

I hereby certify that this correspondence is being electronically deposited with the USPTO via EFS-Web on the date shown below:

June 27, 2008  
Date

/Noemi Tovar/  
Noemi Tovar

Type of Response: Amendment  
Application Number: 10/559,891  
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Filing Date: December 6, 2005